INC.	Safety data sheet according to 1907/2006/EC, Article 31	
Pr	inting date 20.07.2021	Revision: 20.
	SECTION 1: Identification of the substance/mixture and of the comp	any/undertaking
	· 1.1 Product identifier	
	· Trade name: Iron chips (99.95%)	
	<ul> <li>Item number: 93-2664</li> <li>CAS Number: 7439-89-6</li> <li>EC number: 231-096-4</li> <li>1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.</li> </ul>	
	<ul> <li>• 1.3 Details of the supplier of the safety data sheet</li> <li>• Manufacturer/Supplier: Strem Chemicals, Inc.</li> <li>7 Mulliken Way</li> <li>NEWBURYPORT, MA 01950</li> <li>USA</li> <li>info@strem.com</li> </ul>	
	<ul> <li>Further information obtainable from: Technical Department</li> <li>1.4 Emergency telephone number: EMERGENCY: CHEMTREC: + 1 (800) 424-9300 During normal opening times: +1 (978) 499-1600</li> </ul>	

· Signal word Vo	id
· Hazard stateme	nts Void
· Precautionary s	tatements
P262	Do not get in eyes, on skin, or on clothing.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P.	338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with local/regional/national/international
	regulations.
· 2.3 Other hazar	ds
Describe of DDT	and a Dr. D. and a second sect

- Results of PBT and vPvB assessment PBT: Not applicable.

· vPvB: Not applicable.

# SECTION 3: Composition/information on ingredients

- · 3.1 Chemical characterisation: Substances
- CAS No. Description 7439-89-6 iron

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· Identification number(s)

• EC number: 231-096-4

# **SECTION 4: First aid measures**

• 4.1 Description of first aid measures

- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

# **SECTION 5: Firefighting measures**

· 5.1 Extinguishing media

- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

### **SECTION 6: Accidental release measures**

- · 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- · 6.2 Environmental precautions: No special measures required.
- $\cdot$  6.3 Methods and material for containment and cleaning up:
- Dispose contaminated material as waste according to item 13.
- · 6.4 Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### **SECTION 7: Handling and storage**

- 7.1 Precautions for safe handling No special measures required.
- Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- 7.3 Specific end use(s) No further relevant information available.

### SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

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	(Contd. of page 2
8.1 Control parameters	
• Ingredients with limit values that require • Additional information: The lists valid d	<b>e monitoring at the workplace:</b> Not required. luring the making were used as basis.
8.2 Exposure controls	
Personal protective equipment:	
General protective and hygienic measure The usual precautionary measures are to	
• <b>Respiratory protection:</b> Not required.	be untereu to when hundling chemiculs.
• Protection of hands:	
Protective gloves	
Due to missing tests no recommendation	e and resistant to the product/ the substance/ the preparation. to the glove material can be given for the product/ the preparation/ th
chemical mixture.	
	eration of the penetration times, rates of diffusion and the degradation
• Material of gloves The selection of the suitable gloves does	not only depend on the material but also on further marks of an lite on
The selection of the suitable gloves does a varies from manufacturer to manufacture	not only depend on the material, but also on further marks of quality an or
• Penetration time of glove material	27.
	found out by the manufacturer of the protective gloves and has to b
observed.	
• Eye protection: Safety glasses	
9.1 Information on basic physical and cl General Information	hemical properties
General Information Appearance: Form:	Chips
General Information Appearance: Form: Colour:	Chips Grey
General Information Appearance: Form:	Chips
General Information Appearance: Form: Colour: Odour:	Chips Grey Odourless
General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value:	Chips Grey Odourless Not determined.
<ul> <li>General Information</li> <li>Appearance: Form: Colour:</li> <li>Odour:</li> <li>Odour threshold:</li> </ul>	Chips Grey Odourless Not determined.
<ul> <li>General Information</li> <li>Appearance: <ul> <li>Form:</li> <li>Colour:</li> <li>Odour:</li> </ul> </li> <li>Odour threshold: <ul> <li>pH-value:</li> <li>Change in condition</li> </ul> </li> </ul>	Chips Grey Odourless Not determined. Not applicable. 1.535 °C
<ul> <li>General Information</li> <li>Appearance: <ul> <li>Form:</li> <li>Colour:</li> <li>Odour:</li> </ul> </li> <li>Odour threshold: <ul> <li>pH-value:</li> </ul> </li> <li>Change in condition <ul> <li>Melting point/freezing point:</li> </ul> </li> </ul>	Chips Grey Odourless Not determined. Not applicable. 1.535 °C
<ul> <li>General Information</li> <li>Appearance: <ul> <li>Form:</li> <li>Colour:</li> <li>Odour:</li> <li>Odour threshold:</li> </ul> </li> <li>pH-value: <ul> <li>Change in condition</li> <li>Melting point/freezing point:</li> <li>Initial boiling point and boiling range.</li> </ul> </li> </ul>	Chips Grey Odourless Not determined. Not applicable. 1.535 °C : 3.000 °C
<ul> <li>General Information</li> <li>Appearance: <ul> <li>Form:</li> <li>Colour:</li> <li>Odour:</li> <li>Odour threshold:</li> </ul> </li> <li>pH-value: <ul> <li>Change in condition</li> <li>Melting point/freezing point:</li> <li>Initial boiling point and boiling range.</li> </ul> </li> <li>Flash point:</li> </ul>	Chips Grey Odourless Not determined. Not applicable. 1.535 °C : 3.000 °C Not applicable.
<ul> <li>General Information</li> <li>Appearance: <ul> <li>Form:</li> <li>Colour:</li> <li>Odour:</li> </ul> </li> <li>Odour threshold: <ul> <li>pH-value:</li> </ul> </li> <li>Change in condition <ul> <li>Melting point/freezing point:</li> <li>Initial boiling point and boiling range.</li> </ul> </li> <li>Flash point: <ul> <li>Flammability (solid, gas):</li> </ul> </li> </ul>	Chips Grey Odourless Not determined. Not applicable. 1.535 °C : 3.000 °C Not applicable.
<ul> <li>General Information</li> <li>Appearance: <ul> <li>Form:</li> <li>Colour:</li> <li>Odour:</li> <li>Odour threshold:</li> </ul> </li> <li>pH-value: <ul> <li>Change in condition</li> <li>Melting point/freezing point:</li> <li>Initial boiling point and boiling range.</li> </ul> </li> <li>Flash point: <ul> <li>Flammability (solid, gas):</li> <li>Ignition temperature:</li> </ul> </li> </ul>	Chips Grey Odourless Not determined. Not applicable. 1.535 °C : 3.000 °C Not applicable. Product is not flammable.
<ul> <li>General Information</li> <li>Appearance: <ul> <li>Form:</li> <li>Colour:</li> <li>Odour:</li> <li>Odour threshold:</li> </ul> </li> <li>pH-value: <ul> <li>Change in condition</li> <li>Melting point/freezing point:</li> <li>Initial boiling point and boiling range.</li> </ul> </li> <li>Flash point: <ul> <li>Flammability (solid, gas):</li> </ul> </li> <li>Ignition temperature:</li> <li>Decomposition temperature:</li> </ul>	Chips Grey Odourless Not determined. Not applicable. 1.535 °C : 3.000 °C Not applicable. Product is not flammable. Not determined.
<ul> <li>General Information</li> <li>Appearance: <ul> <li>Form:</li> <li>Colour:</li> <li>Odour:</li> <li>Odour threshold:</li> </ul> </li> <li>pH-value: <ul> <li>Change in condition</li> <li>Melting point/freezing point:</li> <li>Initial boiling point and boiling range.</li> </ul> </li> <li>Flash point: <ul> <li>Flammability (solid, gas):</li> </ul> </li> <li>Ignition temperature:</li> <li>Decomposition temperature:</li> <li>Auto-ignition temperature:</li> </ul>	Chips Grey Odourless Not determined. Not applicable. 1.535 °C : 3.000 °C Not applicable. Product is not flammable. Not determined. Not determined.
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<ul> <li>General Information</li> <li>Appearance: <ul> <li>Form:</li> <li>Colour:</li> <li>Odour:</li> <li>Odour threshold:</li> </ul> </li> <li>pH-value: <ul> <li>Change in condition</li> <li>Melting point/freezing point:</li> <li>Initial boiling point and boiling range.</li> </ul> </li> <li>Flash point: <ul> <li>Flash point:</li> <li>Flammability (solid, gas):</li> </ul> </li> <li>Ignition temperature: <ul> <li>Decomposition temperature:</li> <li>Auto-ignition temperature:</li> <li>Explosive properties:</li> <li>Explosion limits:</li> </ul> </li> </ul>	Chips Grey Odourless Not determined. Not applicable. 1.535 °C : 3.000 °C Not applicable. Product is not flammable. Not determined. Not determined. Not determined. Product does not present an explosion hazard.
<ul> <li>General Information</li> <li>Appearance: <ul> <li>Form:</li> <li>Colour:</li> <li>Odour:</li> <li>Odour threshold:</li> </ul> </li> <li>pH-value: <ul> <li>Change in condition</li> <li>Melting point/freezing point:</li> <li>Initial boiling point and boiling range.</li> </ul> </li> <li>Flash point: <ul> <li>Flammability (solid, gas):</li> </ul> </li> <li>Ignition temperature: <ul> <li>Decomposition temperature:</li> <li>Auto-ignition temperature:</li> <li>Explosive properties:</li> <li>Explosion limits: <ul> <li>Lower:</li> </ul> </li> </ul></li></ul>	Chips Grey Odourless Not determined. Not applicable. 1.535 °C : 3.000 °C Not applicable. Product is not flammable. Not determined. Not determined. Product does not present an explosion hazard. Not determined.
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· Relative density	Not determined.	
· Vapour density	Not applicable.	
· Evaporation rate	Not applicable.	
· Solubility in / Miscibility with		
water:	Insoluble.	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
· Solvent content:		
Organic solvents:	0.0 %	
VOC(EC)	0.00 %	
Solids content:	100.0 %	
· 9.2 Other information	No further relevant information available.	

### **SECTION 10: Stability and reactivity**

· 10.1 Reactivity No further relevant information available.

- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

### **SECTION 11: Toxicological information**

· 11.1 Information on toxicological effects

- Acute toxicity Based on available data, the classification criteria are not met.
- · Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- $\cdot \textit{STOT-repeated exposure Based on available data, the classification criteria are not met.}$
- $\cdot$  Aspiration hazard Based on available data, the classification criteria are not met.

#### **SECTION 12: Ecological information**

· 12.1 Toxicity

- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.

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· Additional ecological information:

- General notes: Not known to be hazardous to water.
- · 12.5 Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- $\cdot$  12.6 Other adverse effects No further relevant information available.

#### **SECTION 13: Disposal considerations**

- · 13.1 Waste treatment methods
- · Recommendation Disposal must be made according to official regulations.
- Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

14.1 UN-Number		
ADR, ADN, IMDG, IATA	not regulated	
14.2 UN proper shipping name		
ADR, ADN, IMDG, IATA	not regulated	
14.3 Transport hazard class(es)		
ADR, ADN, IMDG, IATA		
Class	not regulated	
14.4 Packing group		
ADR, IMDG, IATA	not regulated	
14.5 Environmental hazards:		
Marine pollutant:	No	
14.6 Special precautions for user	Not applicable.	
14.7 Transport in bulk according to Ann	ex II of	
Marpol and the IBC Code	Not applicable.	
UN "Model Regulation":	not regulated	

#### **SECTION 15: Regulatory information**

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

· Directive 2012/18/EU

- · Named dangerous substances ANNEX I Substance is not listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

#### **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Technical Department.

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# Trade name: Iron chips (99.95%)

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Contact: Technical Director	
Abbreviations and acronyms:	
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concert	ning the International
Carriage of Dangerous Goods by Road)	
IMDG: International Maritime Code for Dangerous Goods	
ATA: International Air Transport Association	
GHS: Globally Harmonised System of Classification and Labelling of Chemicals	
EINECS: European Inventory of Existing Commercial Chemical Substances	
CAS: Chemical Abstracts Service (division of the American Chemical Society)	
VOC: Volatile Organic Compounds (USA, EU)	
PBT: Persistent, Bioaccumulative and Toxic	
vPvB: very Persistent and very Bioaccumulative	
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